

# Work Order ID 140993

Tuesday, January 26, 2016 3:17:46 PM

646.2910

\*140993\*

Page 1

March 8<sup>th</sup>

Item ID: 646.2910

0140993

Accept

\*N900040100\*

Setup Start

\*NS1\*

Revision ID:

REV. N/C

Stop

\*NS2\*

Item Name: Deflector

Start Date: 1/26/2016 Start Qty: 12.00

\*12\*

Cust Item ID:

Required Date: 1/26/2016 Req'd Qty: 12.00

\*12\*

Customer:

Reference:

Approvals:

Process Plan: MJS

Date: JAN 29 2016

Tooling:

Date:

Run

Start

\*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop

\*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

|       |                                             |           |      |          |                   |    |   |  |                            |
|-------|---------------------------------------------|-----------|------|----------|-------------------|----|---|--|----------------------------|
| 100   | Draw Nbr<br>Revision Nbr<br>646.2900<br>N/C | 42.6 long | 0.00 |          |                   |    |   |  |                            |
| *100* | HAAS 1                                      | Memo      | 0.09 | 16/05/27 | DAS<br>08<br>9-89 | 12 | 0 |  | DAS<br>44<br>9-89 16-05-20 |
| 120   | QC2- Inspect parts off machine FAI/FAIB     |           | 0.00 |          |                   |    |   |  |                            |
| *120* | QC                                          | Memo      | 0.00 | 16/05/27 |                   | 12 | 0 |  | DAS<br>08<br>9-89          |
| 130   | QC8- Inspect parts - second check           |           | 0.00 |          |                   |    |   |  |                            |
| *130* | QC                                          | Memo      | 0.00 |          |                   | 12 | 0 |  | DAS<br>14<br>9-89 16/05/29 |

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                              |                                                |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  |                                                                                                                                                     |  |  |
|--------------------------------------------------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ |                                                | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> |                                                            | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Thermoforming <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/><br/>           Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/><br/>           Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Quality <input type="checkbox"/><br/>           Other <input type="checkbox"/> </div> </div> |                                               |  |                                                                                                                                                     |  |  |
| Date :                                                       |                                                | Step #:                                                                                                                                                                            |                                                            | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  | MRB (QSI042) Approval<br><br><br>Completed By<br><br><br>Lead hand / Supervisor<br>Approval Verification<br><br><br>QC / QA Coordinator<br>Approval |  |  |
| Description Work Order Deviation                             |                                                |                                                                                                                                                                                    |                                                            | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                               |  |                                                                                                                                                     |  |  |
|                                                              |                                                |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  |                                                                                                                                                     |  |  |
|                                                              |                                                |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  |                                                                                                                                                     |  |  |
| Root Cause                                                   |                                                | FAULT CATEGORY                                                                                                                                                                     |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  |                                                                                                                                                     |  |  |
| Environment <input type="checkbox"/>                         | No Re-verification <input type="checkbox"/>    | Pressure/Forced <input type="checkbox"/>                                                                                                                                           | Temperature/Cure <input type="checkbox"/>                  | Power Loss/Surge <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Positioned Wrong <input type="checkbox"/>     |  |                                                                                                                                                     |  |  |
| Design <input type="checkbox"/>                              | Operator <input type="checkbox"/>              | Bending <input type="checkbox"/>                                                                                                                                                   | Set-up <input type="checkbox"/>                            | Folio/Program <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Outside Dimensions <input type="checkbox"/>   |  |                                                                                                                                                     |  |  |
| Doc/Data <input type="checkbox"/>                            | Offset/Setup <input type="checkbox"/>          | Centre Not Concentric <input type="checkbox"/>                                                                                                                                     | BOM/Route <input type="checkbox"/>                         | Grain <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Over/Under tolerance <input type="checkbox"/> |  |                                                                                                                                                     |  |  |
| Equip/Tooling <input type="checkbox"/>                       | Supplier <input type="checkbox"/>              | Cracks <input type="checkbox"/>                                                                                                                                                    | Broken/Damage/Defect <input type="checkbox"/>              | Weld <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Part Incorrect <input type="checkbox"/>       |  |                                                                                                                                                     |  |  |
| Handling/Pre <input type="checkbox"/>                        | Training <input type="checkbox"/>              | Crimp/Kink/Ripple/Wave <input type="checkbox"/>                                                                                                                                    | Inspection Incomplete/Unqualified <input type="checkbox"/> | Wrong Stock Pulled <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Part Lost/Missing <input type="checkbox"/>    |  |                                                                                                                                                     |  |  |
| Material <input type="checkbox"/>                            | Use for Testing <input type="checkbox"/>       | Cuffs <input type="checkbox"/>                                                                                                                                                     | Contamination <input type="checkbox"/>                     | Out of Sequence <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Part Moved <input type="checkbox"/>           |  |                                                                                                                                                     |  |  |
| Internal Transport <input type="checkbox"/>                  | Poor Information <input type="checkbox"/>      | Crushing <input type="checkbox"/>                                                                                                                                                  | Countersink <input type="checkbox"/>                       | Off-set <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Drawing <input type="checkbox"/>              |  |                                                                                                                                                     |  |  |
| Tribal Knowledge <input type="checkbox"/>                    | Rushing <input type="checkbox"/>               | Heat Treat <input type="checkbox"/>                                                                                                                                                | Cut Too Short <input type="checkbox"/>                     | Mislabeled <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Finish <input type="checkbox"/>               |  |                                                                                                                                                     |  |  |
| LOA <input type="checkbox"/>                                 | Product Improvement <input type="checkbox"/>   | Wave/Twist in Tube <input type="checkbox"/>                                                                                                                                        | Instructions Incomplete/Unclear <input type="checkbox"/>   | Fit/Function <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Misread <input type="checkbox"/>              |  |                                                                                                                                                     |  |  |
| Substation <input type="checkbox"/>                          | Process Improvement <input type="checkbox"/>   | Marks/Chatter <input type="checkbox"/>                                                                                                                                             | Drill Holes <input type="checkbox"/>                       | Misaligned/off center <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Turning Sequence <input type="checkbox"/>     |  |                                                                                                                                                     |  |  |
| Past Expiry Date <input type="checkbox"/>                    | Manufacturing Process <input type="checkbox"/> | OTHER : _____                                                                                                                                                                      |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  |                                                                                                                                                     |  |  |
| Misidentified <input type="checkbox"/>                       | Past Due <input type="checkbox"/>              |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  |                                                                                                                                                     |  |  |

**Work Order ID 140993**

Tuesday, January 26, 2016 3:17:46 PM

**\*140993\***

Page 2

Item ID: 646.2910

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Deflector

Start Date: 1/26/2016 Start Qty: 12.00

**\*12\***

Cust Item ID:

Required Date: 1/26/2016 Req'd Qty: 12.00

**\*12\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                      | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp    |
|--------------------------------|-----------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|-------------------|
| 140                            | Outsource process-Anodize per QSI017 4.1.10.1 | 0.00                 |         |        |              |               |               |                  |                   |
| <b>*140*</b>                   |                                               |                      |         |        |              |               |               |                  |                   |
| Outsource4                     | Memo                                          | 36.00                |         |        |              | 12            |               |                  | DAS<br>13<br>9-89 |
| Outsource process - Anodize    | Issue P/O to ATG : <u>32573</u>               |                      |         |        |              |               |               |                  |                   |
|                                | 1- Black Anodize as per Dwg 646.2900          |                      |         |        |              |               |               |                  |                   |
|                                | 2- PRIME AS PER DWG, SEE NOTE #2              |                      |         |        |              |               |               |                  |                   |
|                                | Certification of Conformity is required       |                      |         |        |              |               |               |                  |                   |
| 150                            | Receive & Inspect for Damage & Mat'l Certs    | 0.00                 |         |        |              |               |               |                  |                   |
| <b>*150*</b>                   |                                               |                      |         |        |              |               |               |                  |                   |
| Packaging                      | Memo                                          | 0.00                 |         |        |              |               |               |                  |                   |
| Packaging                      |                                               |                      |         |        |              |               |               |                  |                   |
| 155                            | QC5- Inspect part completeness to step on W/O | 0.00                 |         |        |              |               |               |                  |                   |
| <b>*155*</b>                   |                                               |                      |         |        |              |               |               |                  |                   |
| QC                             | Memo                                          | 0.00                 |         |        |              |               |               |                  | DAS<br>38<br>9-89 |
| Quality Control                |                                               |                      |         |        |              |               |               |                  |                   |

12 x 80/66-13(12)

JUN 17 2016

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                              |                                                |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  |  |                                                                                                                    |  |
|--------------------------------------------------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--|--|--------------------------------------------------------------------------------------------------------------------|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ |                                                | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> |                                                            | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>             Skid-tube <input type="checkbox"/><br/>             Machining <input type="checkbox"/><br/>             Thermoforming <input type="checkbox"/><br/>             Large Fab <input type="checkbox"/> </div> <div>             Cross tube <input type="checkbox"/><br/>             Small Fab <input type="checkbox"/><br/>             Finishing <input type="checkbox"/><br/>             Composite <input type="checkbox"/> </div> <div>             Water Jet <input type="checkbox"/><br/>             Prod. Eng. Coord. <input type="checkbox"/><br/>             Rec/Store/Packaging <input type="checkbox"/><br/>             Supplier <input type="checkbox"/> </div> <div>             Engineering <input type="checkbox"/><br/>             Quality <input type="checkbox"/><br/>             Other <input type="checkbox"/> </div> </div> |                                               |  |  |                                                                                                                    |  |
| Date :                                                       |                                                | Step #:                                                                                                                                                                            |                                                            | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  |  | MRB (QSI042) Approval                                                                                              |  |
| Description Work Order Deviation                             |                                                |                                                                                                                                                                                    |                                                            | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                               |  |  | Completed By<br><br><br>Lead hand / Supervisor<br>Approval Verification<br><br><br>QC / QA Coordinator<br>Approval |  |
|                                                              |                                                |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  |  |                                                                                                                    |  |
|                                                              |                                                |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  |  |                                                                                                                    |  |
| Root Cause                                                   |                                                | FAULT CATEGORY                                                                                                                                                                     |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  |  |                                                                                                                    |  |
| Environment <input type="checkbox"/>                         | No Re-verification <input type="checkbox"/>    | Pressure/Forced <input type="checkbox"/>                                                                                                                                           | Temperature/Cure <input type="checkbox"/>                  | Power Loss/Surge <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Positioned Wrong <input type="checkbox"/>     |  |  |                                                                                                                    |  |
| Design <input type="checkbox"/>                              | Operator <input type="checkbox"/>              | Bending <input type="checkbox"/>                                                                                                                                                   | Set-up <input type="checkbox"/>                            | Folio/Program <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Outside Dimensions <input type="checkbox"/>   |  |  |                                                                                                                    |  |
| Doc/Data <input type="checkbox"/>                            | Offset/Setup <input type="checkbox"/>          | Centre Not Concentric <input type="checkbox"/>                                                                                                                                     | BOM/Route <input type="checkbox"/>                         | Grain <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Over/Under tolerance <input type="checkbox"/> |  |  |                                                                                                                    |  |
| Equip/Tooling <input type="checkbox"/>                       | Supplier <input type="checkbox"/>              | Cracks <input type="checkbox"/>                                                                                                                                                    | Broken/Damage/Defect <input type="checkbox"/>              | Weld <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Part Incorrect <input type="checkbox"/>       |  |  |                                                                                                                    |  |
| Handling/Pre <input type="checkbox"/>                        | Training <input type="checkbox"/>              | Crimp/Kink/Ripple/Wave <input type="checkbox"/>                                                                                                                                    | Inspection Incomplete/Unqualified <input type="checkbox"/> | Wrong Stock Pulled <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Part Lost/Missing <input type="checkbox"/>    |  |  |                                                                                                                    |  |
| Material <input type="checkbox"/>                            | Use for Testing <input type="checkbox"/>       | Cuffs <input type="checkbox"/>                                                                                                                                                     | Contamination <input type="checkbox"/>                     | Out of Sequence <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Part Moved <input type="checkbox"/>           |  |  |                                                                                                                    |  |
| Internal Transport <input type="checkbox"/>                  | Poor Information <input type="checkbox"/>      | Crushing <input type="checkbox"/>                                                                                                                                                  | Countersink <input type="checkbox"/>                       | Off-set <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Drawing <input type="checkbox"/>              |  |  |                                                                                                                    |  |
| Tribal Knowledge <input type="checkbox"/>                    | Rushing <input type="checkbox"/>               | Heat Treat <input type="checkbox"/>                                                                                                                                                | Cut Too Short <input type="checkbox"/>                     | Mislabeled <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Finish <input type="checkbox"/>               |  |  |                                                                                                                    |  |
| LOA <input type="checkbox"/>                                 | Product Improvement <input type="checkbox"/>   | Wave/Twist in Tube <input type="checkbox"/>                                                                                                                                        | Instructions Incomplete/Unclear <input type="checkbox"/>   | Fit/Function <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Misread <input type="checkbox"/>              |  |  |                                                                                                                    |  |
| Substation <input type="checkbox"/>                          | Process Improvement <input type="checkbox"/>   | Marks/Chatter <input type="checkbox"/>                                                                                                                                             | Drill Holes <input type="checkbox"/>                       | Misaligned/off center <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Turning Sequence <input type="checkbox"/>     |  |  |                                                                                                                    |  |
| Past Expiry Date <input type="checkbox"/>                    | Manufacturing Process <input type="checkbox"/> | OTHER :                                                                                                                                                                            |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  |  |                                                                                                                    |  |
| Misidentified <input type="checkbox"/>                       | Past Due <input type="checkbox"/>              |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               |  |  |                                                                                                                    |  |

**Work Order ID 140993**

Tuesday, January 26, 2016 3:17:46 PM

**\*140993\***

Page 3

Item ID: 646.2910

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Stop

**\*NS2\***

Item Name: Deflector

Start Date: 1/26/2016

Start Qty: 12.00

**\*12\***

Cust Item ID:

Required Date: 1/26/2016

Req'd Qty: 12.00

**\*12\***

Customer:

Reference:

Approvals:

Process Plan: \_\_\_\_\_

Date: \_\_\_\_\_

Tooling: \_\_\_\_\_

Date: \_\_\_\_\_

Run Start

**\*NR1\***

QC: \_\_\_\_\_

Date: \_\_\_\_\_

SPC (Y/N): \_\_\_\_\_

Date: \_\_\_\_\_

Stop

**\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

180

Identify as per dwg & Stock Location: CCLOS

0.00

**\*180\***

Packaging

Memo

0.00

\*\*\*IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV\*\*\*

12 JUN 20 2016DMS  
6  
030

190

QC21- Final Inspection - Work Order Release

0.00

**\*190\***

QC

Memo

0.02

MW JUN 21 2016

Quality Control

U 16-26-20

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

## WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                              |  |                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |                                                                                                                                                     |  |  |
|--------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ |  | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> |  | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Thermoforming <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/><br/>           Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/><br/>           Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Quality <input type="checkbox"/><br/>           Other <input type="checkbox"/> </div> </div> |  |  |                                                                                                                                                     |  |  |
| Date :                                                       |  | Step #:                                                                                                                                                                            |  | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  | MRB (QSI042) Approval<br><br><br>Completed By<br><br><br>Lead hand / Supervisor<br>Approval Verification<br><br><br>QC / QA Coordinator<br>Approval |  |  |
| Description Work Order Deviation                             |  |                                                                                                                                                                                    |  | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |                                                                                                                                                     |  |  |
|                                                              |  |                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |                                                                                                                                                     |  |  |

| Root Cause                           |                                 |                                   |                                        | FAULT CATEGORY                        |                                   |                                             |                                           |                              |                                     |                                           |                                        |                                             |                                   |                                       |                                   |                                   |                                          |                                           |                                  |                                              |                                              |                                                |                                   |                                          |                                  |                                                |                                 |                                                 |                                |                                   |                                     |                                             |                                        |                                           |                                 |                                    |                                               |                                                            |                                        |                                      |                                        |                                                          |                                      |                                           |                                        |                                |                               |                                             |                                          |                                  |                                     |                                       |                                                |                                           |                                             |                                               |                                         |                                            |                                     |                                  |                                 |                                  |                                           |
|--------------------------------------|---------------------------------|-----------------------------------|----------------------------------------|---------------------------------------|-----------------------------------|---------------------------------------------|-------------------------------------------|------------------------------|-------------------------------------|-------------------------------------------|----------------------------------------|---------------------------------------------|-----------------------------------|---------------------------------------|-----------------------------------|-----------------------------------|------------------------------------------|-------------------------------------------|----------------------------------|----------------------------------------------|----------------------------------------------|------------------------------------------------|-----------------------------------|------------------------------------------|----------------------------------|------------------------------------------------|---------------------------------|-------------------------------------------------|--------------------------------|-----------------------------------|-------------------------------------|---------------------------------------------|----------------------------------------|-------------------------------------------|---------------------------------|------------------------------------|-----------------------------------------------|------------------------------------------------------------|----------------------------------------|--------------------------------------|----------------------------------------|----------------------------------------------------------|--------------------------------------|-------------------------------------------|----------------------------------------|--------------------------------|-------------------------------|---------------------------------------------|------------------------------------------|----------------------------------|-------------------------------------|---------------------------------------|------------------------------------------------|-------------------------------------------|---------------------------------------------|-----------------------------------------------|-----------------------------------------|--------------------------------------------|-------------------------------------|----------------------------------|---------------------------------|----------------------------------|-------------------------------------------|
| <input type="checkbox"/> Environment | <input type="checkbox"/> Design | <input type="checkbox"/> Doc/Data | <input type="checkbox"/> Equip/Tooling | <input type="checkbox"/> Handling/Pre | <input type="checkbox"/> Material | <input type="checkbox"/> Internal Transport | <input type="checkbox"/> Tribal Knowledge | <input type="checkbox"/> LOA | <input type="checkbox"/> Substation | <input type="checkbox"/> Past Expiry Date | <input type="checkbox"/> Misidentified | <input type="checkbox"/> No Re-verification | <input type="checkbox"/> Operator | <input type="checkbox"/> Offset/Setup | <input type="checkbox"/> Supplier | <input type="checkbox"/> Training | <input type="checkbox"/> Use for Testing | <input type="checkbox"/> Poor Information | <input type="checkbox"/> Rushing | <input type="checkbox"/> Product Improvement | <input type="checkbox"/> Process Improvement | <input type="checkbox"/> Manufacturing Process | <input type="checkbox"/> Past Due | <input type="checkbox"/> Pressure/Forced | <input type="checkbox"/> Bending | <input type="checkbox"/> Centre Not Concentric | <input type="checkbox"/> Cracks | <input type="checkbox"/> Crimp/Kink/Ripple/Wave | <input type="checkbox"/> Cuffs | <input type="checkbox"/> Crushing | <input type="checkbox"/> Heat Treat | <input type="checkbox"/> Wave/Twist in Tube | <input type="checkbox"/> Marks/Chatter | <input type="checkbox"/> Temperature/Cure | <input type="checkbox"/> Set-up | <input type="checkbox"/> BOM/Route | <input type="checkbox"/> Broken/Damage/Defect | <input type="checkbox"/> Inspection Incomplete/Unqualified | <input type="checkbox"/> Contamination | <input type="checkbox"/> Countersink | <input type="checkbox"/> Cut Too Short | <input type="checkbox"/> Instructions Incomplete/Unclear | <input type="checkbox"/> Drill Holes | <input type="checkbox"/> Power Loss/Surge | <input type="checkbox"/> Folio/Program | <input type="checkbox"/> Grain | <input type="checkbox"/> Weld | <input type="checkbox"/> Wrong Stock Pulled | <input type="checkbox"/> Out of Sequence | <input type="checkbox"/> Off-set | <input type="checkbox"/> Mislabeled | <input type="checkbox"/> Fit/Function | <input type="checkbox"/> Misaligned/off center | <input type="checkbox"/> Positioned Wrong | <input type="checkbox"/> Outside Dimensions | <input type="checkbox"/> Over/Under tolerance | <input type="checkbox"/> Part Incorrect | <input type="checkbox"/> Part Lost/Missing | <input type="checkbox"/> Part Moved | <input type="checkbox"/> Drawing | <input type="checkbox"/> Finish | <input type="checkbox"/> Misread | <input type="checkbox"/> Turning Sequence |
|                                      |                                 |                                   |                                        |                                       |                                   |                                             |                                           |                              |                                     |                                           |                                        |                                             |                                   |                                       |                                   |                                   |                                          |                                           |                                  |                                              |                                              |                                                |                                   | OTHER : _____                            |                                  |                                                |                                 |                                                 |                                |                                   |                                     |                                             |                                        |                                           |                                 |                                    |                                               |                                                            |                                        |                                      |                                        |                                                          |                                      |                                           |                                        |                                |                               |                                             |                                          |                                  |                                     |                                       |                                                |                                           |                                             |                                               |                                         |                                            |                                     |                                  |                                 |                                  |                                           |

# Picklist Print

Tuesday, January 26, 2016 3:17:45 PM

Page 1

Work Order ID: 140993

**\*140993\***

Parent Item: 646.2910

**\*646 2910\***

Parent Item Name: Deflector

Start Date: 1/26/2016

Required Date: 1/26/2016

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP REV:A NEW ISSUE 13-04-18 JLM VERIFIED BY:DD

| Component Item ID/<br>Item Name              | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued                          | Date<br>Issued  | Status |
|----------------------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|----------------------------------------|-----------------|--------|
| 646.2900E<br><b>*646 2900E*</b><br>Deflector |                        | Manufactured  | No          |                     |                  |                 | f                  | 137.0000       |             | 45.47368     | <b>DAS</b><br><b>44</b><br><b>9-89</b> | <b>16-05-20</b> |        |

**\*\***

Location

Loc Qty

Loc Code

MAT035

137

\*123832

29

\*126776

108

241

241

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                              |                                                |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  |                                                                                                                                                     |  |  |
|--------------------------------------------------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ |                                                | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> |                                                            | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Thermoforming <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/><br/>           Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/><br/>           Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Quality <input type="checkbox"/><br/>           Other <input type="checkbox"/> </div> </div> |                                               |  |                                                                                                                                                     |  |  |
| Date :                                                       |                                                | Step #:                                                                                                                                                                            |                                                            | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  | MRB (QSI042) Approval<br><br><br>Completed By<br><br><br>Lead hand / Supervisor<br>Approval Verification<br><br><br>QC / QA Coordinator<br>Approval |  |  |
| Description Work Order Deviation                             |                                                |                                                                                                                                                                                    |                                                            | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                               |  |                                                                                                                                                     |  |  |
|                                                              |                                                |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  |                                                                                                                                                     |  |  |
|                                                              |                                                |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  |                                                                                                                                                     |  |  |
| Root Cause                                                   |                                                | FAULT CATEGORY                                                                                                                                                                     |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  |                                                                                                                                                     |  |  |
| Environment <input type="checkbox"/>                         | No Re-verification <input type="checkbox"/>    | Pressure/Forced <input type="checkbox"/>                                                                                                                                           | Temperature/Cure <input type="checkbox"/>                  | Power Loss/Surge <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Positioned Wrong <input type="checkbox"/>     |  |                                                                                                                                                     |  |  |
| Design <input type="checkbox"/>                              | Operator <input type="checkbox"/>              | Bending <input type="checkbox"/>                                                                                                                                                   | Set-up <input type="checkbox"/>                            | Folio/Program <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Outside Dimensions <input type="checkbox"/>   |  |                                                                                                                                                     |  |  |
| Doc/Data <input type="checkbox"/>                            | Offset/Setup <input type="checkbox"/>          | Centre Not Concentric <input type="checkbox"/>                                                                                                                                     | BOM/Route <input type="checkbox"/>                         | Grain <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Over/Under tolerance <input type="checkbox"/> |  |                                                                                                                                                     |  |  |
| Equip/Tooling <input type="checkbox"/>                       | Supplier <input type="checkbox"/>              | Cracks <input type="checkbox"/>                                                                                                                                                    | Broken/Damage/Defect <input type="checkbox"/>              | Weld <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Part Incorrect <input type="checkbox"/>       |  |                                                                                                                                                     |  |  |
| Handling/Pre <input type="checkbox"/>                        | Training <input type="checkbox"/>              | Crimp/Kink/Ripple/Wave <input type="checkbox"/>                                                                                                                                    | Inspection Incomplete/Unqualified <input type="checkbox"/> | Wrong Stock Pulled <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Part Lost/Missing <input type="checkbox"/>    |  |                                                                                                                                                     |  |  |
| Material <input type="checkbox"/>                            | Use for Testing <input type="checkbox"/>       | Cuffs <input type="checkbox"/>                                                                                                                                                     | Contamination <input type="checkbox"/>                     | Out of Sequence <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Part Moved <input type="checkbox"/>           |  |                                                                                                                                                     |  |  |
| Internal Transport <input type="checkbox"/>                  | Poor Information <input type="checkbox"/>      | Crushing <input type="checkbox"/>                                                                                                                                                  | Countersink <input type="checkbox"/>                       | Off-set <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Drawing <input type="checkbox"/>              |  |                                                                                                                                                     |  |  |
| Tribal Knowledge <input type="checkbox"/>                    | Rushing <input type="checkbox"/>               | Heat Treat <input type="checkbox"/>                                                                                                                                                | Cut Too Short <input type="checkbox"/>                     | Mislabeled <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Finish <input type="checkbox"/>               |  |                                                                                                                                                     |  |  |
| LOA <input type="checkbox"/>                                 | Product Improvement <input type="checkbox"/>   | Wave/Twist in Tube <input type="checkbox"/>                                                                                                                                        | Instructions Incomplete/Unclear <input type="checkbox"/>   | Fit/Function <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Misread <input type="checkbox"/>              |  |                                                                                                                                                     |  |  |
| Substation <input type="checkbox"/>                          | Process Improvement <input type="checkbox"/>   | Marks/Chatter <input type="checkbox"/>                                                                                                                                             | Drill Holes <input type="checkbox"/>                       | Misaligned/off center <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Turning Sequence <input type="checkbox"/>     |  |                                                                                                                                                     |  |  |
| Past Expiry Date <input type="checkbox"/>                    | Manufacturing Process <input type="checkbox"/> | OTHER : _____                                                                                                                                                                      |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  |                                                                                                                                                     |  |  |
| Misidentified <input type="checkbox"/>                       | Past Due <input type="checkbox"/>              |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  |                                                                                                                                                     |  |  |





|                                                                |                                      |                        |                        |                 |                                                                                           |  |
|----------------------------------------------------------------|--------------------------------------|------------------------|------------------------|-----------------|-------------------------------------------------------------------------------------------|--|
| APICAL<br>INDUSTRIES, INC.                                     | ENGINEERING CHANGE NOTICE NO. 03694  |                        |                        |                 | SHEET 1 OF 1                                                                              |  |
|                                                                | DWG NO. 646.2900                     | REV: N/C               | PREPARED BY: B. PETERS | DATE: 11/14/12  | EFFECT ON DWG<br><input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC. |  |
|                                                                | DWG TITLE: DEFLECTOR                 |                        |                        |                 |                                                                                           |  |
|                                                                | APPROVED BY: ENGR <i>[Signature]</i> | MFG <i>[Signature]</i> | QC <i>[Signature]</i>  | EFF: NEXT ORDER |                                                                                           |  |
| TRANSACTION CODES (TC):<br>A-ADD C-CREATE<br>R-REVISE D-DELETE | REASON: ADDED ALTERNATE MATERIAL.    |                        |                        |                 | ECR: D-12-002                                                                             |  |

IS

1 PRIMARY MATERIAL: 7075-T6 ALUMINUM PER AMS-QQ-A-225/9.  
ALTERNATE MATERIAL: 7075-T6511 ALUMINUM PER AMS-QQ-A-200/11.

**SHEET 1, ZONE A2 IS:**

1 COPY  
ON TO  
BRING  
1 LD COPY  
ENDMENT  
NOTICE

14099.3-MW  
16-01-28

|                     |    |             |     |                                                                                                                                                               |                                                                                             |                                                                                            |
|---------------------|----|-------------|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| F/N                 | TC | PART NUMBER | QTY | DESCRIPTION                                                                                                                                                   | MATERIAL                                                                                    | SPECIFICATION                                                                              |
| DOCUMENTS EFFECTED: |    |             |     | <input type="checkbox"/> RFMS <input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRUC <input type="checkbox"/> ICA <input type="checkbox"/> BOM | CHANGE CATEGORY<br><input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR | DER REVIEW REQUIRED<br><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO |

**APICAL**  
INDUSTRIES, INC.

|                                       |                         |                        |                       |                                                                                           |  |
|---------------------------------------|-------------------------|------------------------|-----------------------|-------------------------------------------------------------------------------------------|--|
| ENGINEERING CHANGE NOTICE I           |                         | 03207                  |                       | SHEET 1 OF 1                                                                              |  |
| DWG NO. 646.2900                      | REV: N/C                | PREPARED BY PB         | DATE: 08/29/11        | EFFECT ON DWG<br><input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC. |  |
| DWG TITLE: DEFLECTOR                  |                         |                        |                       |                                                                                           |  |
| APPROVED BY:                          | ENGR <i>[Signature]</i> | MFG <i>[Signature]</i> | QC <i>[Signature]</i> | EFF: CURRENT ORDER                                                                        |  |
| REASON: ADDED ALTERNATE BASE MATERIAL |                         |                        |                       |                                                                                           |  |

TRANSACTION CODES (TC):  
A-ADD C-CREATE  
R-REVISE D-DELETE

SHEET 1, ZONE A2, NOTE 1 IS:

NOTES:

1

MATERIAL: 7075-T6 ALUMINUM PER AMS-QQ-A-225/9 OR AMS-QQ-A-250/12

2

FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III CLASS 2,  
COLOR BLACK; CARDINAL 4860-50 PRETREATMENT PRIMER;  
PRIME IAW MIL-P-23377J TYPE I CLASS N

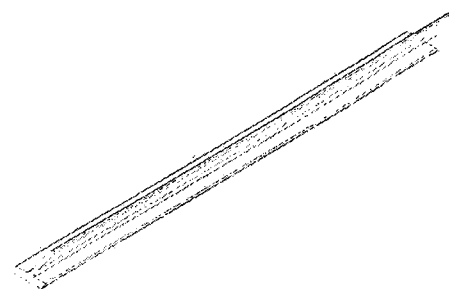
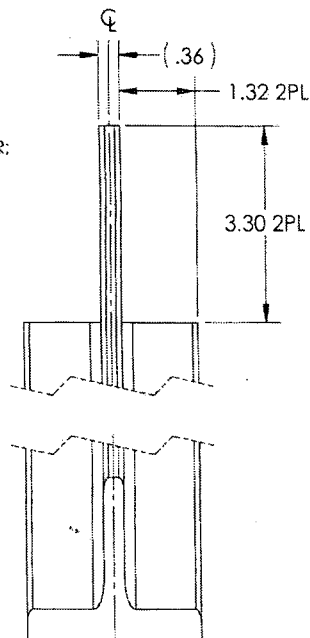
3. DEBURR AND BREAK ALL SHARP EDGES

4. IDENTIFY IAW MPP-120

| F/N                                                                                                                            | TC | PART NUMBER | QTY | DESCRIPTION                                                                                 | MATERIAL | SPECIFICATION                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------|----|-------------|-----|---------------------------------------------------------------------------------------------|----------|--------------------------------------------------------------------------------------------|
| DOCUMENTS EFFECTED:                                                                                                            |    |             |     |                                                                                             |          |                                                                                            |
| <input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRU <input type="checkbox"/> ICA <input type="checkbox"/> BOM |    |             |     | CHANGE CATEGORY<br><input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR |          | DER REVIEW REQUIRED<br><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO |

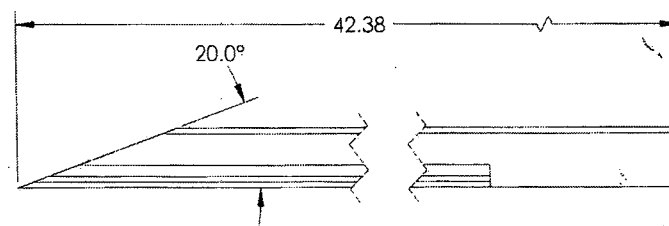
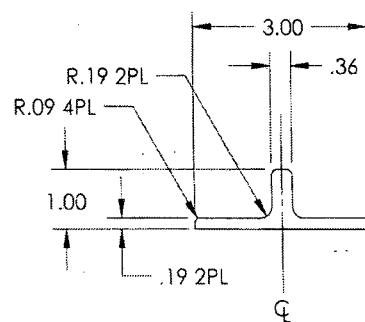
| REVISION |             |      |          |
|----------|-------------|------|----------|
| REV.     | DESCRIPTION | DATE | APPROVAL |
|          |             |      |          |
|          |             |      |          |
|          |             |      |          |

1. MATERIAL: 7075-T6 ALUMINUM PER AMS-QQ-A-225/9
2. FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III CLASS 2.  
COLOR BLACK; CARDINAL 4860-50 PRETREATMENT PRIMER;  
PRIME IAW MIL-P-23377 J TYPE I CLASS N
3. DEBURR AND BREAK ALL SHARP EDGES
4. IDENTIFY IAW MPP-120



UNINCORPORATED ECN(S)

03207 03694



646.2910

[illegible]



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO32573**

Purchase Order Date 6/2/2016

PO Print Date 6/2/2016

Page Number 1 of 2

**Order From :**

VC-ATG001

A.T.G. INDUSTRIES INC.  
731 INDUSTRIELLE ROAD  
ROCKLAND, ON K4K 1T2  
CANADA

**Ship To :** DART AEROSPACE LTD

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

*REVISED*

**Contact Name**

**Vendor Phone** 613-446-4544

**Ship To Contact**

**Ship To Phone**

**Ship Via:** VENDOR'S TRUCK

**Ship Acct:**

**Buyer**

Chantal Lavoie

**Customer POID**

**Customer Tax #** 10127-2607

**Terms**

Net 30

**Currency**

CAD

**FOB**

FCA - (Free Carrier)

| Line Nbr                                                                                                          | Reference Vendor Part Number<br>Line Comments<br>Delivery Comments | Description/<br>Mfg ID         | Req Date/<br>Taxable<br>Promise Date | CD | Req Qty/<br>Unit of<br>Measure | PO Unit Price | Extended Price |
|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------|--------------------------------------|----|--------------------------------|---------------|----------------|
| 1                                                                                                                 | 140993                                                             | 646.2910 DEFLECTOR<br>REV. N/C | 6/10/2016<br>Yes<br>6/10/2016        |    | 12.00                          | \$48.00       | \$576.00       |
| FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE 1 CLASS N |                                                                    |                                |                                      |    |                                |               |                |
| Line Total:                                                                                                       |                                                                    |                                |                                      |    |                                |               | \$576.00       |
| 2                                                                                                                 | 145351                                                             | 646.9710 BODY REV. D           | 6/10/2016<br>Yes<br>6/10/2016        |    | 12.00                          | \$14.50       | \$174.00       |
| FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE 1 CLASS N |                                                                    |                                |                                      |    |                                |               |                |
| Line Total:                                                                                                       |                                                                    |                                |                                      |    |                                |               | \$174.00       |

Note:

6/2/2016



A.T.G. INDUSTRIES INC.  
731 INDUSTRIELLE STREET  
ROCKLAND, ON K4K 1T2  
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

### Pack List

Number: 911821

Date: 10-Jun-16

#### To

Dart Aerospace Ltd  
1270 Aberdeen St  
Hawkesbury, ON K6A 1K7

#### Ship To

CHANTAL LAVOIE  
Dart Aerospace Ltd  
1270 Aberdeen St  
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

| Terms                                                                                                                                                                                              |                                                              | Ship Via  |                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------|---------------------|
| Quantity                                                                                                                                                                                           | Description                                                  |           |                     |
| PLEASE REFERENCE THE PACK LIST NUMBER ON ALL CORRESPONDENCE TO THIS SHIPMENT.<br>IF YOU HAVE ANY QUESTIONS, PLEASE CALL AT (613) 446-4544.                                                         |                                                              |           |                     |
| 12<br>ea                                                                                                                                                                                           | Part: 646.2910<br>Deflector<br>Job: 19591                    | PO: 32573 | Rev: N/C<br>Line: 1 |
| 12<br>ea                                                                                                                                                                                           | Part: 646.9710<br>BODY<br>Job: 19592                         | PO: 32573 | Rev: D<br>Line: 2   |
| 1<br>ea                                                                                                                                                                                            | Part: ADMINISTRATION FEE<br>ADMINISTRATION FEE<br>Job: 19593 | PO: 32573 | Rev:<br>Line: 4     |
| DATE: 10/6/16<br>CERTIFIED SIGNATURE: <br>RECEIVER SIGNATURE: _____                                             |                                                              |           |                     |
| Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt. |                                                              |           |                     |
| CERTIFICATE OF CONFORMANCE                                                                                                                                                                         |                                                              |           |                     |
| A.T.G. INDUSTRIES INC. CERTIFIES THAT ALL ITEMS IN THIS SHIPMENT CONFORM TO REQUIREMENTS.                                                                                                          |                                                              |           |                     |
| MADE IN CANADA.                                                                                                                                                                                    |                                                              |           |                     |